Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:
Commercial Vessel Density October 2009-2010 AIS UTM17

1.2. Summary description of the data:
These data were generated to provide insight into marine traffic patterns on a macro scale so they could be analyzed across the coastal waters of the Continental United States, this data set is for the UTM Zone 17N. For this dataset a transit is counted for every unique vessel intersecting a 1 kilometer square grid cell each day. This data represents the total number of vessel transits from October 2009 - October 2010. Some grid cells were unable to be processed, but this does not interfere with the integrity of this dataset.

Please note multiple connection errors occurred during the time frame of this study. In most cases data gaps were filled by making subsequent request to the coastguard or other groups receiving the same data feed. However, due to resource constraints uninterrupted coverage was not obtained. Overall data outages were minimal on the order less than a day per month and because random and affect all areas uniformly do not has a significant effect on the integrity of the data. Also as stated on the USCG NAIS website AIS data is not representative of all vessel traffic and USCG NAIS receivers do not fully cover the entire extent of this study area. Please take time to understand both of these limitations.

1.3. Is this a one-time data collection, or an ongoing series of measurements?
One-time data collection

1.4. Actual or planned temporal coverage of the data:
2010

1.5. Actual or planned geographic coverage of the data:
W: -84.33001, E: -77.697336, N: 33.994923, S: 22.710608

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:
NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:
coastal.info@noaa.gov

2.5. Phone number:
(843) 740-1202

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- 2012-07-01 00:00:00 - Source data derived from the raw AIS data processing is as follows: The USCG maintains a network of AIS receivers that collects AIS messages from passing ships. These data are transmitted to USCG data center that compiles the data and provides data feeds to other government agencies. In accordance with the USCG COMDTINST 5230.80, the USCG provided OCS with a "Level A" data feed. Level A is unfiltered real-time data that is less than 96 hours from initial time of transmission. OCS has subscribed to this data since 2008. To limit data storage requirements the data feed was filtered by the USCG to only send one position message per ship per minute and all duplicate messages (i.e. ship broadcasts received by more than one NAIS station) were removed. This real time feed was archived at OCS. A specialized software NOAADATA.py (K. Schwehr. The noaadata-py Software Tool-set, v0.42, 2009. http://vislab-ccom.-unh.edu/schwehr/software/noaadata) is used to create daily files and and load the data into an Oracle Spatial database.   Despite receiving this filtered feed, a great deal of conditioning needs to take place to prepare this data to be analyzed. The AIS system was not intended or designed for subsequent analysis; however Calder and Schwehr ably proved, given the proper conditioning, AIS data can be used for traffic analysis. (B. R. Calder., K. Schwehr. Traffic Analysis for the Calibration of Risk Assessment Methods. Proceedings: US Hydrographic Conference 2009, Norfolk, VA, 11-14 May 2009, http://www.thsoa.org/us09papers.htm) Based on their research, we filtered out AIS messages with non-unique user IDs and vessels with erroneous dimensions. We also separated messages by speed, separating those reporting a speed of less than 0.4 knots into a separate anchored table. The accuracy and abundance of the AIS data support high resolution analysis specifically within port areas. This study however was interested in traffic patterns on a macro scale so patterns could be analyzed across the coastal waters of the Continental United States. To limit the processing time and the overall file size for each region a grid cell size of 1 kilometer was chosen. For this dataset a transits is counted for every unique vessel intersecting a grid cell each day. Multiple trips into a grid cell on a given day by the same vessel are only counted as one transit. Instead of calculating transits based on the coordinates within the AIS message transit lines were created by connecting all the vessels reports each day. Traffic counts were then calculated by summing the number of lines within each cell. Although this dataset only contains the total traffic count "TRNSTS_TTL" the original dataset has transits by AIS vessel type and many other attributes as well. Processed from May - July 2012.

- 2012-10-16 00:00:00 - Further data development processing followed to obtain this feature class: Acquire original source data and maintain a copy on the development tier, create geodatabase import the original shapefiles. Delete all feature will zero

values and validate the feature classes' geometry (Data Management > Features > Repair Geometry). Acquire, create and update metadata from providers (as needed) . Compressed data set into a zip file for ease of download. (Citation: AIS Vessel Count - 2010)

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation
The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?
No

6.1.1. If metadata are non-existent or non-compliant, please explain:
Missing/invalid information:
- 1.6. Type(s) of data
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
   https://www.fisheries.noaa.gov/inport/item/48869

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
   Metadata produced and maintained in accordance with the NOAA Data Documentation
   Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-
   Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:
   NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

7.3. Data access methods or services offered:

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions
Line and Staff Offices may extend this template by inserting additional questions in this section.